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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,296	09/16/2003	Hong Ying Wang	50103-569	9800
7590 10/06/2004 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096			EXAMINER BERNATZ, KEVIN M	
			ART UNIT 1773	PAPER NUMBER

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/662,296	Applicant(s) WANG ET AL.	
	Examiner Kevin M Bernatz	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/16/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. Preliminary amendments to the specification and cancellation of claims 1 - 15, filed on September 16, 2003, have been entered in the above-identified application.

Examiner's Comments

2. Regarding the means-plus-function limitation(s) "means for facilitating release of said embossing surface" in claim 16, the Examiner has given the term(s) the broadest reasonable interpretation(s) consistent with the written description in applicants' specification as it would be interpreted by one of ordinary skill in the art. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Donaldson Co., Inc.*, 16 F.3d 1190, 1192-95, 29 USPQ2d 1845, 1848-50 (Fed. Cir. 1994). See MPEP 2111. Specifically, the Examiner notes that the disclosed means is the use of an embossing surface formed of either Pt, C or a hydrophobic polymer. The equivalent means is deemed any material other than the conventional nickel used, which is what applicants disclose as *not* having good release properties (*specification, pages 12 – 14*).

Election/Restrictions

3. The Examiner notes that since claims 1 – 15 were cancelled in the preliminary amendment filed on September 16, 2003, the restriction between claims 16 – 20 and claims 1 – 15 is now moot. Therefore, the prior restriction requirement has been removed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 16, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeoka et al. (U.S. Patent No. 4,845,000).

Regarding claim 16, Takeoka et al. disclose a stamper (*Title*) comprising (a) main body (*Figure 1C, layers 10', 12, 14 and 16'*) having an embossing surface (*layer 18'*) including a negative image of servo patterns (*elements 32*); and (b) means for facilitating release of said embossing surface of said stamper from a layer subsequent to embossing of said servo patterns (*col. 4, lines 16 – 23*).

The limitation(s) "for embossing a servo pattern in a surface of a layer of a hydrophilic sol-gel formed on a surface of a substrate for a magnetic recording medium" is (an) intended use limitation(s) and is not further limiting in so far as the structure of the product is concerned. Note that "in apparatus, article, and composition claims, intended use must result in a **structural difference** between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. **If the prior art structure is capable of performing the intended use, then it meets the claim.** In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art." [emphasis added] *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963). See MPEP § 2111.02. In the instant case, since the disclosed product *is* a stamper the Examiner deems it is clearly capable of meeting the claimed intended use limitation above.

Regarding claim 19, Takeoka et al. disclose said main body (*element 16'*) comprising a first metal (*col. 4, lines 13 – 16*) and said embossing surface (*element 18'*) comprising a second metal (*col. 4, lines 16 – 23*).

Regarding claim 20, Takeoka et al. disclose specific first and second metals meeting applicants' claimed material limitations (*col. 4, lines 13 – 23*).

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6. Claims 16 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Zager et al. (U.S. Patent No. 5,552,009).

Regarding claim 16, Zager et al. disclose a stamper (*col. 10, line 41 bridging col. 11, line 33*) comprising (a) main body (*col. 11, lines 14 – 16 and 22 - 24: "opaque metal relief image layer" or "dimensionally stable and preferably transparent to actinic radiation" substrate*) having an embossing surface (*col. 11, lines 3 – 13: embossed "photohardenable film"*) including a negative image of servo patterns (*col. 10, lines 45 - 46*); and (b) means for facilitating release of said embossing surface of said stamper from a layer subsequent to embossing of said servo patterns (*col. 11, lines 25 – 30: fluoropolymers*).

The limitation(s) "for embossing a servo pattern in a surface of a layer of a hydrophilic sol-gel formed on a surface of a substrate for a magnetic recording medium" is (an) intended use limitation(s) and is not further limiting in so far as the structure of the product is concerned for the reasons cited above.

Regarding claims 17 and 18, Zager et al. disclose that polycarbonate (e.g. an amorphous hydrophobic thermoplastic material) can be used as a substrate that is dimensionally stable and transparent to actinic radiation (*col. 3, line 65 bridging col. 4, line 57*) and that the photohardenable "embossing surface" is a thermoplastic resin composition (*col. 5, lines 54 – 57*). The Examiner deems that there is sound basis for the position that Zager et al. disclose thermoplastic materials which, upon exposure to actinic radiation resulting in crosslinking and/or polymerization, will inherently be both hydrophobic and amorphous (*col. 5, line 9 bridging col. 7, line 52*). The Examiner notes

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that since Zager et al. is directed to optically transparent layers (*claim 1*) there is sound basis that the polymers must be amorphous since crystalline polymers are translucent or opaque due to the refraction of light from the crystal boundaries.

Regarding claim 19, Zager et al. disclose said main body (*col. 11, lines 14 – 16: "opaque metal relief image layer"*) comprising a first metal (*col. 11, lines 14 – 16: e.g. Cr*) and said embossing surface (*embossed "photohardenable film" and/or release layer*) comprising a hydrophobic polymer (*inherent for the reasons above and "fluoropolymers", which are also deemed to be inherently hydrophobic*).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Zager et al. as applied above.

Zager et al. is relied upon as described above.

Zager et al. fail to disclose a first metal formed of nickel.

However, the Examiner notes that Zager et al. teach that conventional stampers in the art are formed using nickel (*col. 16, lines 6 – 9*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Zager et al. to use a dimensionally

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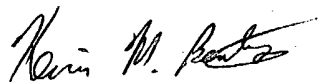
stable nickel substrate as the base layer in a stamper as taught by Zager et al., since using nickel stampers is known in the art as the conventional stamper material and the selection of a known material for a known task is within the knowledge of one of ordinary skill in the art.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin M. Bernatz, PhD.
Primary Examiner

September 29, 2004